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**Lai et al.**

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- (54) **CONJUGATES OF DITHIOCARBAMATES WITH PHARMACOLOGICALLY ACTIVE AGENTS AND USES THEREFOR**
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- (\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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- (51) **Int. Cl.<sup>7</sup>** ..... **C07D 207/04**; C07D 207/30; A61K 38/00; A61K 31/27; A61K 31/40
- (52) **U.S. Cl.** ..... **514/423**; 514/2; 514/514; 530/402; 548/565; 548/573
- (58) **Field of Search** ..... 530/402, 300, 530/356; 514/8-25, 2, 423, 514; 548/565, 573

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(57) **ABSTRACT**

In accordance with the present invention, there are provided conjugates of nitric oxide scavengers (e.g., dithiocarbamates, or "DC") and pharmacologically active agents (e.g., NSAIDs). Invention conjugates provide a new class of pharmacologically active agents (e.g., anti-inflammatory agents) which cause a much lower incidence of side-effects due to the protective effects imparted by modifying the pharmacologically active agents as described herein. In addition, invention conjugates are more effective than unmodified pharmacologically active agents because cells and tissues contacted by the pharmacologically active agent(s) are protected from the potentially damaging effects of nitric oxide overproduction induced thereby as a result of the co-production of nitric oxide scavenger (e.g., dithiocarbamate), in addition to free pharmacologically active agent, when invention conjugate is cleaved.